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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/578,408

05/05/2006

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Q94708

1650

23373 7590 12/27/2010
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EXAMINER

ARCIERO, ADAM A

ART UNIT

PAPER NUMBER

1727

NOTIFICATION DATE

DELIVERY MODE

12/27/2010

ELECTRONIC

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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 10/578,408
Filing Date: May 05, 2006
Appellants: SUZUKI ET AL.

David P. Emery
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed October 14, 2010 appealing from the Office action mailed January 19, 2010.

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(1) Real Party in Interest

The examiner has no comment on the statement, or lack of statement, identifying by name the real party in interest in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The following is a list of claims that are rejected and pending in the application:

Claims 12-18 are currently pending and have been rejected.

(4) Status of Amendments After Final

The examiner has no comment on the appellant's statement of the status of amendments after final rejection contained in the brief.

(5) Summary of Claimed Subject Matter

The examiner has no comment on the summary of claimed subject matter contained in the brief.

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(6) Grounds of Rejection to be Reviewed on Appeal

The examiner has no comment on the appellant's statement of the grounds of rejection to be reviewed on appeal. Every ground of rejection set forth in the Office action from which the appeal is taken (as modified by any advisory actions) is being maintained by the examiner except for the grounds of rejection (if any) listed under the subheading "WITHDRAWN REJECTIONS." New grounds of rejection (if any) are provided under the subheading "NEW GROUNDS OF REJECTION."

(7) Claims Appendix

The examiner has no comment on the copy of the appealed claims contained in the Appendix to the appellant's brief.

(8) Evidence Relied Upon

6379849 B1	Terahara et al.	04-2002
2001/0051298 A1	Hanafusa	12-2001
5326652	Lake	07-1994
JP 2000-123801	Komatsu	04-2000

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

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1. Claims 12-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Komatsu (JP 2000-123801 as found in IDS dated 05/05/2006) in view of Terahara et al. (US 6,379,846 B1).

As to Claim 12, Komatsu discloses a battery comprising an anode, cathode and separator as a power generating element and two cover members which cover part of said power generating element (Abstract and Fig. 1). Komatsu further discloses a battery case for accommodating said cover members and said power generating element, wherein said battery case comprises a laminate sheet of an aluminum foil and a sealant resin layer (Fig. 1, [paragraph [0014] and Abstract). Said cover members and said sealant layer is provided between said power generating element and said aluminum foil. Komatsu does not specifically disclose wherein said electrodes comprise non-coated portions.

However, Terahara et al. teaches of a nonaqueous electrolyte battery which comprises an anode sheet and a cathode sheet. The end parts of said anode and cathode comprise a non-coated part to which a nickel ribbon (for the anode) and an aluminum ribbon (for the cathode) (terminal leads) is welded to so as to provide a lead body for the emergence of current (col. 10, lines 30-46). At the time of the invention, it would have been obvious to one of ordinary skill in the art to provide a non-coated portion at the end of the cathode and anode of the battery of Komatsu et al. because Terahara et al. teaches that the terminal leads can be welded thereby giving an emergence of current from the battery (col. 10, lines 30-46). The non-coated portion of the battery of Komatsu in view of Terahara et al. is covered by the cover member because the cover member encompasses the ends power generating element of Fig. 1.

As to Claim 13, Komatsu discloses two cover members covering said power generating element, wherein said cover members are cup-shaped and wherein open sides of said cover members face each other (Fig. 1).

2. Claims 14-15 and 17-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Komatsu (JP 2000-123801 as found in IDS dated 05/05/2006) in view of Terahara et al. (US 6,379,846 B1) as applied to claims 12-13 above, and further in view of Hanafusa (US 2001/0051298 A1).

As to Claims 14-15, the combination of Komatsu and Terahara et al. does not specifically disclose wherein the lead terminals are held between two cover members. Komatsu discloses that said cover members are made of polypropylene ([0013]).

However, Hanafusa teaches a battery element which is covered by a cover member **6,8** and an aluminum foil barrier layer (fig. 36). Said cover members **6,8** are made of polypropylene and cover the entire power generating element as well as hold the lead terminals (Fig. 36 and [0221]). Hanafusa teaches of a cover member which is materially the same as that of Komatsu and serves the same purpose of covering said power generating element. It would have been obvious that the substitution of one known element for another would have yielded predictable results to one of ordinary skill in the art at the time of the invention.

As to Claim 17, Komatsu discloses a battery comprising an anode, cathode and separator as a power generating element and two cover members which cover part of said power generating element (Abstract and Fig. 1). Komatsu further discloses a battery case for accommodating said cover members and said power generating element, wherein said battery

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case comprises a laminate sheet of an aluminum foil and a sealant resin layer (Fig. 1, [paragraph [0014] and Abstract). Said cover members and said sealant layer is provided between said power generating element and said aluminum foil. Komatsu does not specifically disclose wherein said electrodes comprise non-coated portions.

However, Terahara et al. teaches of a nonaqueous electrolyte battery which comprises an anode sheet and a cathode sheet. The end parts of said anode and cathode comprise a non-coated part to which a nickel ribbon (for the anode) and an aluminum ribbon (for the cathode) (terminal leads) is welded to so as to provide a lead body for the emergence of current (col. 10, lines 30-46). At the time of the invention, it would have been obvious to one of ordinary skill in the art to provide a non-coated portion at the end of the cathode and anode of the battery of Komatsu et al. because Terahara et al. teaches that the terminal leads can be welded thereby giving an emergence of current from the battery (col. 10, lines 30-46). The non-coated portion of the battery of Komatsu in view of Terahara et al. is covered by the cover member because the cover member encompasses the ends power generating element of Fig. 1.

The combination of Komatsu and Terahara et al. does not specifically disclose wherein said two cover members hold the lead terminals between each other and cover said power generating element. However, Hanafusa teaches a battery element which is covered by a cover member **6,8** and an aluminum foil barrier layer (fig. 36). Said cover members **6,8** are made of polypropylene and cover the entire power generating element as well as hold the lead terminals (Fig. 36 and [0221]). Hanafusa teaches of a cover member which is materially the same as that of Komatsu and serves the same purpose of covering said power generating element. It would have been obvious that the substitution of one known element for another would have yielded

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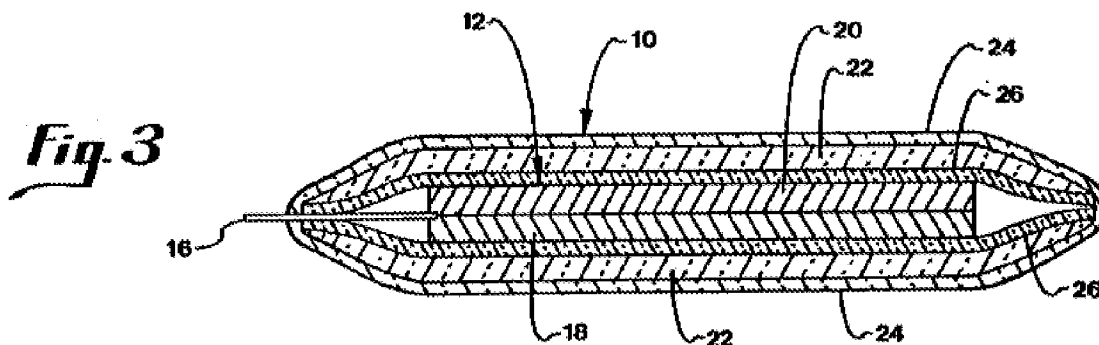
predictable results to one of ordinary skill in the art at the time of the invention.

As to Claim 18, Hanafusa et al. teaches wherein said cover-members **6,8** are cup-shaped and face one another to cover said power generating element (fig. 36).

3. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Komatsu (JP 2000-123801 as found in IDS dated 05/05/2006) in view of Terahara et al. (US 6,379,846 B1) as applied to claims 12-13 above, and further in view of Lake (US 5,326,652).

As to Claim 16, the combination of Komatsu and Terahara et al. does not expressly disclose wherein the superimposed portion of said two covers faces the non-coated portion and faces a superimposed portion of the flexible sheet, on the opposite side to the non-coated portion.

However, LAKE teaches a battery package **10** comprising a flexible base film **22** that covers and encloses the battery **12** and a flexible layer **24** of an inorganic material deposited on said base film **22** to enclose and seal the battery **12** (col. 3, lines 42-51 and Fig. 3). As can be seen in Figure 3 (shown below), the superimposed portion of said covers (base film) **22** faces the non-coated portion with one side. The opposite side of said superimposed portion of said covers **22** faces a superimposed portion of said flexible sheet **24**.



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At the time of the invention, it would have been obvious to one of ordinary skill in the art to modify the battery packaging of HANAFUSA et al. and TERAHARA et al. so as to have a superimposed portion of said two covers **22** facing both a non-coated portion and a superimposed portion of a flexible sheet **24**, because LAKE teaches that such a flexible composite package is impervious to gas and water vapor transmission as well as being able to be shaped to conform to an irregular or curved surface (col. 2, lines 47-54).

(10) Response to Argument

Applicant's principal arguments are:

a) Examiner has failed to establish a prima facie case for the feature "at least the part of said non-coated portion is exposed on a surface of said power generating element, and the exposed part of said non-coated portion is covered with said cover member (claim 12).

b) *the applied combination of Komatsu and Hanafusa fails to disclose "each one of said two cover members and said sealant layers are provided between said power generating element and said aluminum foil (claim 17).*

c) Examiner does not state which position of Fig. 3 in Lake corresponds to the non-coated portion (claim 16).

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In response to Applicant's arguments, please consider the following comments.

a) The Examiner did establish a prima facie case for the limitation described above in the last Office action. Terahara et al. was used to modify Komatsu's battery by teaching that the end parts of the anode and cathode comprise non-coated portions to which terminal leads are welded to (col. 10, lines 30-46). At the time of the invention, it would have been obvious to one of ordinary skill in the art to modify the electrodes of Komatsu, so that the end portions are provided with non-coated portions, because Terahara et al. teaches that the terminal leads can be welded to said non-coated portions and an emergence of current can be delivered from the battery. Since the whole battery of Komatsu is covered by the cover member, the non-coated portions are also covered by the cover member. The non-coated portions are exposed on a surface of the power generating element where the leads are attached. The terminal lead of Komatsu is attached to an end of the power generating element, not the middle of the power generating element, and Terahara et al. teaches that the ends of the electrodes comprise non-coated portions so that terminal leads may be welded to create a path for current to exit the battery system for use with an application. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). Examiner realizes that Komatsu does not discuss a location of a weld, however Terahara is used as a teaching/modifying reference to teach the importance of having non-coated portions. Komatsu clearly shows where the lead is attached to a surface of the power generating element that is exposed. After Komatsu is modified by the teachings of Terahara, the exposed portion of

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Komatsu where the lead is attached (Fig. 1) is the non-coated portion taught by Terahara.

Furthermore, in response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., weld) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

b) Claim 17 does not require that the battery cover has to be separate from the battery case. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., cover member is completely separate from the battery case) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). Furthermore, Komatsu and Terahara teach the main structure of claim 17 wherein the battery case comprises a laminate sheet of an aluminum foil and a sealant resin layer and said cover members and sealant layer are provided between the power generating element and the aluminum foil. Hanafusa was used to substitute a slightly differently structured cover member for the cover member of Komatsu and Terahara. The cover members of Hanafusa are structurally and materially the same as that of Komatsu. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642

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F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). Hanafusa is not used to modify or substitute the aluminum foil and sealant resin layer of Komatsu, but rather the different structure of the cover members for that of Komatsu. It is just a matter of a simple substitution of the cover member which sandwiches the lead terminals, taught by Hanafusa, for the cup-shaped cover members disposed on either ends of the power generating element of Komatsu. The cover members are materially the same and serve the same purpose. Therefore, it would have been obvious to substitute one cover member for another as it would have yielded predictable results to one of ordinary skill in the art.

c) Lake was not used to teach the non-coated portion limitation. Terahara et al. was used to teach that the ends of the electrodes comprise non-coated portions so that the terminal leads can be welded thereto. Therefore, the ends of the electrodes in Fig. 3, where the terminal leads are attached, are where the non-coated portions can be found. Therefore, the superposed portions of the two cover members faces the non-coated ends of the electrodes, where the terminal lead is welded thereto. The non-coated portions of the electrodes are exposed on a surface of the power generating element where the leads are attached, otherwise, the leads would not be able to be attached and the function of the battery would be compromised. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

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(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/Adam A Arciero/

Examiner, Art Unit 1727

Conferees

/Dah-Wei D. Yuan/
Supervisory Patent Examiner, Art Unit 1727

/Patrick Joseph Ryan/
Supervisory Patent Examiner, Art Unit 1726